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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,643	12/02/2003	Norman Goris	N. GORIS 7-7	4532
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HITT GAINES, PC LSI Corporation PO BOX 832570 RICHARDSON, TX 75083			EXAMINER AGA, SORI A	
			ART UNIT 2419	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@hittgaines.com

Office Action Summary

Application No.

10/725,643

Applicant(s)

GORIS ET AL.

Examiner

SORI A. AGA

Art Unit

2419

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-15 and 17-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-15 and 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's amendment and accompanying remarks mailed 04/23/2009 has been entered and carefully considered. Claims 1, 11 and 21 are amended. Claims 6 and 16 are cancelled. Claims 1-5, 7-15 and 17-23 are pending.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 2, 5, 8-12, 15, and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahagi (US 20020102978 A1) (herein after Yahagi) in view of Molteni et al. (US PGPUB 2004/0066759 A1) (herein after Molteni) and Coombes (US 2004/0203959 A1) (herein after Coombes).

Regarding claim 1, Yahagi teaches a system for selecting one of at least two different candidate communication networks for data communication by a mobile communication device, comprising: a network selector that: employs said mobile communication device to perform a data transfer between said mobile communication device and a communication server associated with each of said at least two different candidate communication networks [see figure 6 and paragraph 0038 lines 10-17 where a controller-44 (network selector) directs the wireless interface-41 (mobile communication device) to send a request signal (data communication) to a controller within a communication center-50 (communication server) associated with three candidate networks ('21', '22' and '23' fig. 6)]; and performs an evaluation

of said at least two different candidate communication networks based on at least one data communication quality parameter **[see paragraph 0026 lines 1-12 where the network selection is made based on detecting and monitoring (evaluating) traffic congestion and cost (quality parameter) associated with each network]**.

However, Yahagi does not explicitly teach the parameter is determined by a time needed by each of data transfers that is unique to each of said data transfers, and wherein said time needed is calculated from a difference between a start time when said data transfer is sent from said mobile communication device to said communication server and an end time when complete data of said data transfer is received from said communication server by said mobile communication device.

However, Molteni teaches a performance metrics collection operation in order to select a wireless network from a plurality of wireless networks can be based on calculating the difference between the time taken to send a DNS (communication server) request and the time a reply is received (complete data of said data transfer is received) **[see paragraph 103 lines 1-8 – see also paragraph 0102]**. It would have been obvious for a person having ordinary skill in the art to determine the performance metric in Yahagi based on calculating the difference between the time taken to send a request to a communication server and the time a reply is received for the request (i.e. a time needed by each request (each data transfer) that is unique to each request (data transfer)). Such quality of service information is useful to the mobile device for example if the mobile station is to participate in service wherein such network performance metrics are important (see Molteni paragraph 0009).

However, Yahagi does not explicitly teach said calculating is performed by said mobile communication device. However, Coombes in the same field of endeavor teaches average fetch response is measured and updated (calculated) in a pro-fetch controller found within a mobile communication device [see paragraph 0035 lines 17 and 22-23; see also fig. 4 '404']. Therefore, it would have been obvious at the time of the invention to enable the mobile communication device of Yahagi to calculate average fetch response in order to enable said device determine if the candidate networks meet certain Quality Of Service requirements.

Regarding claim 2, Yahagi teaches the system as recited in Claim 1 wherein said network selection subsystem causes said wireless communication device to employ one of said at least two different candidate wireless communication networks based upon an outcome of said evaluation [see paragraph 0025 lines 11-12 where the controller-22 (wireless communication device) directs the wireless interface-21 to establish a connection to the selected network].

Regarding claim 5, Yahagi teaches the system as recited in Claim 1 wherein said mobile communication device is selected from the group consisting of: a mobile telephone, a personal digital assistant (PDA), and a mobile digital assistant (MDA) [see paragraph 0024 line 5 where Yahagi teaches the mobile communication device is a mobile terminal of a cellular phone networks].

Regarding claim 8, Yahagi teaches the system as recited in Claim 1 wherein said network selector employs a display of said mobile communication device to notify a user of an outcome of said evaluation [see **paragraph 0025 lines 8-11 where a user interface including a display and an annunciator for indicating a congestion level detected by a traffic monitor**].

Regarding claim 9, Yahagi teaches the system as recited in Claim 1 wherein said network selector takes charge rates associated with said at least two different candidate wireless communication networks into account in performing said evaluation [see **paragraph 0026 line 8 where tariff data is taken into account for evaluating the networks**].

Regarding claim 10, the system as recited in Claim 1 wherein said network selector automatically performs said data transfers and evaluation [see **paragraph 0005 lines 3-5 where a multi-network environment allowing the user to receive service without making a manual switchover (automatic) from one network to another**].

Regarding claim 11, Yahagi teaches a method of selecting one of at least two different candidate communication networks for data communication by a mobile communication device, comprising:
performing a data transfer between said mobile communication device and a communication server associated with each of said at least two different candidate

communication networks [see **figure 6 and paragraph 0038 lines 10-17 where a controller-44 (network selector) directs the wireless interface-41 (mobile communication device) to send a request signal (data communication) to a controller within a communication center-50 (communication server) associated with three candidate networks-‘21’, ‘22’ and ‘23’ (candidate networks);** and performing an evaluation of said at least two different candidate communication networks based on at least one data communication quality parameter [see **paragraph 0026 lines 1-12 where the network selection is made based on detecting and monitoring (evaluating) traffic congestion and cost (quality parameter) associated with each network].**

However, Yahagi does not explicitly teach the parameter is determined by a time needed by each of data transfers that is unique to each of said data transfers, and wherein said time needed is calculated from a difference between a start time when said data transfer is sent from said mobile communication device to said communication server and an end time when complete data of said data transfer is received from said communication server by said mobile communication device.

However, Molteni teaches a performance metrics collection operation in order to select a wireless network from a plurality of wireless networks can be based on calculating the difference between the time taken to send a DNS (communication server) request and the time a reply is received (complete data of said data transfer is received) [see **paragraph 103 lines 1-8 – see also paragraph 0102].** It would have been obvious for a person having ordinary skill in the art to determine the performance metric in Yahagi based on

calculating the difference between the time taken to send a request to a communication server and the time a reply is received for the request (i.e. a time needed by each request (each data transfer) that is unique to each request (data transfer)). Such quality of service information is useful to the mobile device for example if the mobile station is to participate in service wherein such network performance metrics are important (see Molteni paragraph 0009).

However, Yahagi does not explicitly teach said calculating is performed by said mobile communication device. However, Coombes in the same field of endeavor teaches average fetch response is measured and updated (calculated) in a pro-fetch controller found within a mobile communication device [see paragraph 0035 lines 17 and 22-23; see also fig. 4 '404']. Therefore, it would have been obvious at the time of the invention to enable the mobile communication device of Yahagi to calculate average fetch response in order to enable said device determine if the candidate networks meet certain Quality Of Service requirements.

Regarding claim 12, Yahagi teaches the method as recited in Claim 11 further comprising causing said wireless communication device to employ one of said at least two different candidate wireless communication networks based upon an outcome of said evaluation [see paragraph 0025 lines 11-12 where the controller-22 (wireless communication device) directs the wireless interface-21 to establish a connection to the selected network].

Regarding claim 15, Yahagi teaches the method as recited in Claim 11 wherein said mobile communication device is selected from the group consisting of: a mobile telephone, a personal digital assistant (PDA), and a mobile digital assistant (MDA) [see **paragraph 0024 line 5 where Yahagi teaches the mobile communication device is a mobile terminal of a cellular phone networks**].

Regarding claim 18, Yahagi teaches the method as recited in Claim 11 further comprising employing a display of said mobile communication device to notify a user of an outcome of said evaluation [see **paragraph 0025 lines 8-11 where a user interface including a display and an annunciator for indicating a congestion level detected by a traffic monitor**].

Regarding claim 19, Yahagi teaches the method as recited in Claim 11 further taking charge rates associated with said at least two different candidate wireless communication networks into account in performing said evaluation [see **paragraph 0026 line 8 where tariff data is taken into account for evaluating the networks**].

Regarding claim 20, Yahagi teaches the method as recited in Claim 11 further comprising automatically performing said data transfers and evaluation [see **paragraph 0005 lines 3-5 where a multi-network environment allowing the user to receive service without making a manual switchover (automatic) from one network to**

another].

Regarding claim 21, Yahagi teaches a mobile communication device, comprising: a keypad; a display; and a network selector, associated with said keypad and said display [see paragraph 0025 lines 8-11; where a User interface-23 including a display and an annunciator for indicating the received response signal to permit the user to select a desired network and enter a command signal are shown], that employs said mobile communication device to perform a data transfer between said mobile communication device and a communication server associated with each of said at least two different candidate communication networks [see figure 6 and paragraph 0038 lines 10-17 where a controller-44 (network selector) directs the wireless interface-41 (mobile communication device) to send a request signal (data communication) to a controller within a communication center-50 (communication server) associated with three candidate networks ('21', '22' and '23' fig. 6)]; and performs an evaluation of said at least two different candidate communication networks based on at least one data communication quality parameter [see paragraph 0026 lines 1-12 where the network selection is made based on detecting and monitoring (evaluating) traffic congestion and cost (quality parameter) associated with each network].

However, Yahagi does not explicitly teach the parameter is determined by a time needed by each of data transfers that is unique to each of said data transfers, and wherein said time needed is calculated from a difference between a start time when said data transfer is sent from said mobile communication device to said communication server and an end

time when complete data of said data transfer is received from said communication server by said mobile communication device.

However, Molteni teaches a performance metrics collection operation in order to select a wireless network from a plurality of wireless networks can be based on calculating the difference between the time taken to send a DNS (communication server) request and the time a reply is received (complete data of said data transfer is received) [see **paragraph 103 lines 1-8 – see also paragraph 0102**]. It would have been obvious for a person having ordinary skill in the art to determine the performance metric in Yahagi based on calculating the difference between the time taken to send a request to a communication server and the time a reply is received for the request (i.e. a time needed by each request (each data transfer) that is unique to each request (data transfer)). Such quality of service information is useful to the mobile device for example if the mobile station is to participate in service wherein such network performance metrics are important (see Molteni paragraph 0009).

However, Yahagi does not explicitly teach said calculating is performed by said mobile communication device. However, Coombes in the same field of endeavor teaches average fetch response is measured and updated (calculated) in a pro-fetch controller found within a mobile communication device [see **paragraph 0035 lines 17 and 22-23; see also fig. 4 '404'**]. Therefore, it would have been obvious at the time of the invention to enable the mobile communication device of Yahagi to calculate average fetch response in order to enable said device determine if the candidate networks meet certain Quality Of Service

requirements.

Regarding claim 22, Yahagi teaches the mobile communication device as recited in Claim 21 wherein said mobile communication device is selected from the group consisting of: a mobile telephone, a personal digital assistant (PDA), and a mobile digital assistant (MDA) [see paragraph 0024 line 5 where Yahagi teaches the mobile communication device is a mobile terminal of a cellular phone networks]

Regarding claim 23, Yahagi teaches the mobile communication device as recited in Claim 21 wherein said network selector employs said display to notify a user of an outcome of said evaluation [see paragraph 0025 lines 8-11 where a user interface including a display and an annunciator for indicating a congestion level detected by a traffic monitor to the user].

3. Claims 3,4,13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahagi, Molteni and Coombes as applied to claims 1, 2, 5, 8-12, 15 and 18-23 above and further in view of Guilford et al. (US 20020087674 A1) (herein after Guilford).

Regarding claim 3, Yahagi teaches the system as recited in Claim 1 as discussed above. Yahagi does not explicitly teach said at least two different candidate wireless networks comprise GSM and UMTS. However, Guilford in the same field of endeavor as Yahagi teaches that candidate networks can be GSM or UMTS [0014 lines 8-10]. It would have

been obvious at the time of the invention to make Yahagi's device compatible with said standards in order to have devices that are commercially appealable in view of the fact that said standards are widely used in the Industry.

Regarding claim 4, Yahagi teaches the system of claim 1 as discussed above. However, Yahagi does not explicitly teach said networks conform to a standard selected from the group consisting of GPRS, HSCSD or EDGE standards. However, Guilford teaches the candidate networks may employ different technologies such as GPRS or EDGE. [see **0027 line 2 and 0087 line 4**]. It would have been obvious at the time of the invention to make Yahagi's device compatible with said standards in order to have devices that are commercially appealable in view of the fact that said standards are widely used in the Industry.

Regarding claim 13, Yahagi teaches the method as recited in Claim 11 as discussed. Yahagi does not explicitly teach said at least two different candidate wireless networks comprise GSM and UMTS. However, Guilford in the same field of endeavor as Yahagi teaches that candidate networks can be GSM or UMTS [**0014 lines 8-10**]. It would have been obvious at the time of the invention to make Yahagi's device compatible with said standards in order to have devices that are commercially appealable in view of the fact that said standards are widely used in the Industry.

Regarding claim 14, Yahagi teaches the method as recited in Claim 11 as discussed above. However, Yahagi does not explicitly teach said networks conform to a standard

selected from the group consisting of GPRS, HSCSD or EDGE standards. However, Guilford teaches the candidate networks may employ different technologies such as GPRS or EDGE. [see **paragraph 0027 line 2 and 0087 line 4**]. It would have been obvious at the time of the invention to make Yahagi's device compatible with said standards in order to have devices that are commercially appealable in view of the fact that said standards are widely used in the Industry.

4. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahagi, Molteni and Coombes as applied to claims 1, 2, 5, 8-12, 15 and 18-23 above, and further in view of Michaelis et al. (US 20040009751 A1) (herein after Michaelis).

Regarding claim 7, Yahagi teaches the system as recited in Claim 1 as discussed above. However, Yahagi does not explicitly teach communication drops as a quality parameter of communication quality. However, Michaelis teaches lowering the candidate status of a network based on losing of a connection (dropping) [see **paragraph 0045 line 6**].

Therefore, it would have been obvious at the time of the invention to add droppings as a parameter for selecting networks in order minimize the selection of networks with higher probability of droppings as a serving network.

Regarding claim 17, Yahagi teaches the method as recited in Claim 11 as discussed above. However, Yahagi does not explicitly teach communication drops as a quality parameter of communication quality. However, Michaelis teaches lowering the candidate

status of a network based on losing of a connection (dropping) [see paragraph 0045 line 6]. Therefore, it would have been obvious at the time of the invention to add droppings as a parameter for selecting networks in order minimize the selection of networks with higher probability of droppings as a serving network.

Response to Arguments

5. Applicant's arguments with respect to claims 1-5, 7-15 and 17-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SORI A. AGA whose telephone number is (571)270-1868. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. A. A./
Examiner, Art Unit 2419

*/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art Unit 2419*